ABSTRACT OF THE DISCLOSURE

A biomagnetic field measuring apparatus has a plurality of fluxmeters disposed externally of a living body and each including a superconducting quantum interference device (SQUID) for detecting a biomagnetic field generated from the living body, the plurality of fluxmeters being operative to detect a temporal change of a component of the biomagnetic field in a first direction which is vertical to the surface of the living body, an operation processor for performing computation for determining a temporal change of a value proportional to a root of square sum of differential value of the first-direction magnetic field component in second and third directions which cross the first direction and computation for integrating the temporal change of the value over a predetermined interval to determine an integral value, and a display for displaying the determined integral value. Distribution of magnetic fields generated from the heart is determined with a small number of fluxmeters.